```
=> file .biotech
  s yeast (5a) cell
          35638 YEAST (5A) CELL
  => s l1 and (Pichia pastoris)
             936 L1 AND (PICHIA PASTORIS)
 => s protein (5a) extract?
          52748 PROTEIN (5A) EXTRACT?
 => s 12 and 13
 L4
             210 L2 AND L3
 => s 14 and (detergent or tributylphosphate or (TNBP) or dimethylundecylamine or
 dimethyltetradecylamieoxide)
              71 L4 AND (DETERGENT OR TRIBUTYLPHOSPHATE OR (TNBP) OR DIMETHYLUND
                 ECYLAMINE OR DIMETHYLTETRADECYLAMIEOXIDE)
 => s reducing (5a) agent
         111160 REDUCING (5A) AGENT
 => s 15 and 16
 L7
             11 L5 AND L6
 => s l5 and (dithiothreitol or DDT or dithioerythiritol or DTE or Cysteine or Cys
 ot tria 2-carboxyethyphosphine or TCEP)
              63 L5 AND (DITHIOTHREITOL OR DDT OR DITHIOERYTHIRITOL OR DTE OR
                 CYSTEINE OR CYS OT TRIA 2-CARBOXYETHYPHOSPHINE OR TCEP)
 => s 18 and 16
. T.9
             11 L8 AND L6
 => s 18 and (glycerol)
 L10
             42 L8 AND (GLYCEROL)
 => s 17 and 110
 L11
              9 L7 AND L10
 => s 19 and 110
              9 L9 AND L10
 => s l11 and l12
 L13
              9 L11 AND L12
 => d 113 1-9 bib ab
 1.13
      ANSWER 1 OF 9 USPATFULL
        2002:39906 USPATFULL
 ΑN
 TI
        OB polypeptides and modified forms as modulators of body weight
 IN
        Friedman, Jeffrey M., New York, NY, United States
        Zhang, Yiying, New York, NY, United States
        Proenca, Ricardo, Astoria, NY, United States
 PA
        The Rockefeller University, New York, NY, United States (U.S.
        corporation)
 PΙ
        US 6350730
                           В1
                                 20020226
 AΙ
        US 1995-488223
                                 19950607 (8)
        Continuation-in-part of Ser. No. US 1995-438431, filed on 10 May 1995
 RLI
        Continuation-in-part of Ser. No. US 1994-347563, filed on 30 Nov 1994,
        now patented, Pat. No. US 5935810 Continuation-in-part of Ser. No. US
        1994-292345, filed on 17 Aug 1994, now patented, Pat. No. US 6001968
 DТ
        Utility
 FS
        GRANTED
 EXNAM
        Primary Examiner: Saoud, Christine J.
```

LREP

Klauber & Jackson

CLMN Number of Claims: 27

ECL Exemplary Claim: 1

DRWN 65 Drawing Figure(s); 61 Drawing Page(s)

LN.CNT 7111

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates generally animals including mammals and humans, an identified herein as modulators of body therapeutic uses of such modulators. In present invention relates to nucleotide murine and human OB gene, and two isofor expressed by such nucleotides or degener demonstrate the ability to participate i weight and that have been postulated to regulation of body weight and adiposity.

The present invention relates generally to the control of body weight of animals including mammals and humans, and more particularly to materials identified herein as modulators of body weight, and to diagnostic and therapeutic uses of such modulators. In one of its broadest aspects, the present invention relates to nucleotide sequences corresponding to the murine and human OB gene, and two isoforms thereof, and proteins expressed by such nucleotides or degenerate variations thereof, that demonstrate the ability to participate in the control of mammalian body weight and that have been postulated to play a critical role in the regulation of body weight and adiposity. The present invention further provides nucleic acid molecules for use as molecular probes or as primers for polymerase chain reaction (PCR) amplification. In further aspects, the present invention provides cloning vectors and mammalian expression vectors comprising the nucleic acid molecules of the invention. The invention further relates to host cells transfected or transformed with an appropriate expression vector and to their use in the preparation of the modulators of the invention. Also provided are antibodies to the OB polypeptide. Moreover, a method for modulating body weight of a mammal is provided.

ANSWER 2 OF 9 USPATFULL AN 2001:190931 USPATFULL TIModulators of body weight, corresponding nucleic acids and proteins, and diagnostic and therapeutic uses thereof Friedman, Jeffrey M., New York, NY, United States IN Zhang, Yiying, New York, NY, United States Proenca, Ricardo, Astoria, NY, United States PAThe Rockfeller University, NY, NY, United States (U.S. corporation) PΤ US 6309853 B1 20011030 ΑТ US 1995-483211 19950607 (8) RLI Continuation-in-part of Ser. No. US 1995-438431, filed on 10 May 1995 Continuation-in-part of Ser. No. US 1994-347563, filed on 30 Nov 1994, now patented, Pat. No. US 5936810 Continuation-in-part of Ser. No. US 1994-292345, filed on 17 Aug 1994, now patented, Pat. No. US 6001968 Utility DTFS GRANTED EXNAM Primary Examiner: Yucel, Remy LREP Klauber & Jackson CLMN Number of Claims: 21

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

65 Drawing Figure(s); 61 Drawing Page(s)

Exemplary Claim: 1

ECL

AB

DRWN

LN.CNT 6074

The present invention relates generally to the control of body weight of animals including mammals and humans, and more particularly to materials $identified\ herein\ as\ modulators\ of\ body\ weight,\ and\ to\ diagnostic\ and$ therapeutic uses of such modulators. In its broadest aspect, the present invention relates to nucleotide sequences corresponding to the murine and human OB gene, and two isoforms thereof, and proteins expressed by such nucleotides or degenerate variations thereof, that demonstrate the ability to participate in the control of mammalian body weight and that have been postulated to play a critical role in the regulation of body weight and adiposity. The present invention further provides nucleic acid molecules for use as molecular probes or as primers for polymerase chain reaction (PCR) amplification. In further aspects, the present invention provides cloning vectors and mammalian expression vectors comprising the nucleic acid molecules of the invention. The invention further relates to host cells transfected or transformed with an appropriate expression vector and to their use in the preparation of the modulators of the invention. Also provided are antibodies to the OB

polypeptide. Moreover, a method for modulating body weight of a mammal

is provided. ANSWER 3 OF 9 USPATFULL 2000:128480 USPATFULL L13ΑN ΤI Nucleic acid primers and probes for the mammalian OB gene IN Friedman, Jeffrey M., New York, NY, United States Zhang, Yiying, New York, NY, United States Proenca, Ricardo, Astoria, NY, United States Maffei, Margherita, New York, NY, United States PA The Rockfeller University, NY, United States (U.S. corporation) PΙ US 6124448 20000926 AΙ US 1995-488208 19950607 (8) RLT Continuation-in-part of Ser. No. US 1995-438431, filed on 10 May 1995 which is a continuation-in-part of Ser. No. US 1994-347563, filed on 30 Nov 1994, now patented, Pat. No. US 5935810 which is a continuation-in-part of Ser. No. US 1994-292345, filed on 17 Aug 1994 DTUtility FS Granted Primary Examiner: Railey, II, Johnny F. EXNAM Klauber & Jackson LREP CLMN Number of Claims: 4 ECL Exemplary Claim: 1 61 Drawing Figure(s); 61 Drawing Page(s) CAS INDEXING IS AVAILABLE FOR THIS PATENT. The present invention relates generally to the control of body weight of AΒ animals including mammals and humans, and more particularly to materials identified herein as modulators of weight, and to the diagnostic and therapeutic uses to which such modulators may be put. In its broadest aspect, the present invention relates to the elucidation and discovery of nucleotide sequences, and proteins putatively expressed by such nucleotides or degenerate variations thereof, that demonstrate the ability to participate in the control of mammalian body weight. The nucleotide sequences in object represent the genes corresponding to the

murine and human ob gene, that have been postulated to play a critical role in the regulation of body weight and adiposity. Preliminary data, presented herein, suggests that the polypeptide product of the gene in question functions as a hormone. The present invention further provides nucleic acid molecules for use as molecular probes, or as primers for polymerase chain reaction (PCR) amplification, i.e., synthetic or natural oligonucleotides. In further aspects, the present invention provides a cloning vector, which comprises the nucleic acids of the invention; and a bacterial, insect, or a mammalian expression vector, which comprises the nucleic acid molecules of the invention, operatively associated with an expression control sequence. Accordingly, the invention further relates to a bacterial or a mammalian cell transfected or transformed with an appropriate expression vector, and correspondingly, to the use of the above mentioned constructs in the preparation of the modulators of the invention. Also provided are antibodies to the ob polypeptide. Moreover, a method for modulating body weight of a mammal is provided. In specific examples, genes encoding two isoforms of both the murine and human ob polypeptides are provided.

```
L13 ANSWER 4 OF 9 USPATFULL
AN
       2000:128471 USPATFULL
       OB polypeptide antibodies and method of making
TI
IN
       Friedman, Jeffrey M., New York, NY, United States
       Zhang, Yiying, New York, NY, United States
       Proenca, Ricardo, Astoria, NY, United States
PA
       The Rockefeller University, New York, NY, United States (U.S.
       corporation)
DТ
       US 6124439
                               20000926
ΑI
       US 1995-488214
                               19950607 (8)
RLI
       Continuation-in-part of Ser. No. US 1995-438431, filed on 10 May 1995
```

which is a continuation-in-part of Ser. No. US 1994-347563, filed on 30 Nov 1994 which is a continuation-in-part of Ser. No. US 1994-292345, filed on 17 Aug 1994 DTUtility FS Granted EXNAM Primary Examiner: Draper, Garnette D. Klauber & Jackson LREP CLMN Number of Claims: 27 ECL Exemplary Claim: 1 DRWN 68 Drawing Figure(s); 61 Drawing Page(s) LN.CNT 6777 CAS INDEXING IS AVAILABLE FOR THIS PATENT. The present invention relates generally to the control of body weight of animals including mammals and humans, and more particularly to materials identified herein as modulators of body weight, and to diagnostic and therapeutic uses of such modulators. In its broadest aspect, the present invention relates to nucleotide sequences corresponding to the murine and human OB gene, and two isoforms thereof, and proteins expressed by such nucleotides or degenerate variations thereof, that demonstrate the ability to participate in the control of mammalian body weight and that have been postulated to play a critical role in the regulation of body weight and adiposity. The present invention further provides nucleic acid molecules for use as molecular probes or as primers for polymerase chain reaction (PCR) amplification. In further aspects, the present invention provides cloning vectors and mammalian expression vectors comprising the nucleic acid molecules of the invention. The invention further relates to host cells transfected or transformed with an appropriate expression vector and to their use in the preparation of the modulators of the invention. Also provided are antibodies to the OB polypeptide. Moreover, a method for modulating body weight of a mammal is provided. L13ANSWER 5 OF 9 USPATFULL 2000:44077 USPATFULL ANTI OB polypeptides as modulators of body weight TN Friedman, Jeffrey M., New York, NY, United States Zhang, Yiying, New York, NY, United States Proenca, Ricardo, Astoria, NY, United States PA The Rockefeller University, United States (U.S. corporation) US 6048837 PΙ 20000411 AΤ US 1995-485942 19950607 (8) RLI Continuation-in-part of Ser. No. US 1995-438431, filed on 10 May 1995 which is a continuation-in-part of Ser. No. US 1994-347563, filed on 30 Nov 1994 which is a continuation-in-part of Ser. No. US 1994-292345, filed on 17 Aug 1994 DT Utility FS Granted EXNAM Primary Examiner: Draper, Garnette D. Klauber & Jackson LREP CLMN Number of Claims: 11 ECL Exemplary Claim: 1 35 Drawing Figure(s); 61 Drawing Page(s) DRWN LN.CNT 7390 CAS INDEXING IS AVAILABLE FOR THIS PATENT. The present invention relates generally to the control of body weight of animals including mammals and humans, and more particularly to materials identified herein as modulators of body weight, and to diagnostic and therapeutic uses of such modulators. In its broadest aspect, the present invention relates to nucleotide sequences corresponding to the murine and human OB gene, and two isoforms thereof, and proteins expressed by such nucleotides or degenerate variations thereof, that demonstrate the ability to participate in the control of mammalian body weight and that

have been postulated to play a critical role in the regulation of body weight and adiposity. The present invention further provides nucleic acid molecules for use as molecular probes or as primers for polymerase

chain reaction (PCR) amplification. In further aspects, the present invention provides cloning vectors and mammalian expression vectors comprising the nucleic acid molecules of the invention. The invention further relates to host cells transfected or transformed with an appropriate expression vector and to their use in the preparation of the modulators of the invention. Also provided are antibodies to the OB polypeptide. Moreover, a method for modulating body weight of a mammal is provided.

```
L13 ANSWER 6 OF 9 USPATFULL AN 1999:124725 USPATFULL
TI
       Production of GAD65 in methylotrophic yeast
       Raymond, Christopher K., Seattle, WA, United States
IN
       Bukowski, Thomas R., Seattle, WA, United States
       Bishop, Paul D., Fall City, WA, United States
       ZymoGenetics, Inc., Seattle, WA, United States (U.S. corporation)
PΑ
       US 5965389
PΤ
                                19991012
ΑI
       US 1996-747108
                                19961108 (8)
RT.T
       Continuation-in-part of Ser. No. US 1996-703807, filed on 26 Aug 1996
       And a continuation-in-part of Ser. No. US 1996-703809, filed on 26 Aug
       1996, now patented, Pat. No. US 5716808
PRAI
       US 1995-6397P
                            19951109 (60)
DΤ
       Utility
FS
       Granted
EXNAM
       Primary Examiner: Degen, Nancy; Assistant Examiner: Schwartzman, Robert
       Townsend and Townsend and Crew LLP
CLMN
       Number of Claims: 56
ECL
       Exemplary Claim: 12
DRWN
       3 Drawing Figure(s); 3 Drawing Page(s)
LN.CNT 2078
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB
       Methylotrophic yeast are used for high-level expression of GAD65 that
       makes the production of GAD65 feasible on an industrial scale. A
       methanol-inducible promoter from, for example, an alcohol oxidase gene,
       such as Pichia pastoris AOX1, can be used to
       regulate GAD65 expression. The recombinant GAD65 has high specific
       activity and retains antigenic characteristics of the native molecule
       that are essential to immunological assays and therapeutic protocols.
L13 ANSWER 7 OF 9 USPATFULL
ΑN
       1998:22074 USPATFULL
ΤI
       Aqueous multiple-phase isolation of polypeptide
IN
       Builder, Stuart, Belmont, CA, United States
       Hart, Roger, Burlingame, CA, United States
       Lester, Philip, San Lorenzo, CA, United States
       Ogez, John, Redwood City, CA, United States
       Reifsnyder, David, San Mateo, CA, United States
       Genentech, Inc., South San Francisco, CA, United States (U.S.
PA
       corporation)
       US 5723310
PΙ
                               19980303
       US 1995-385187
AΙ
                               19950207 (8)
       Continuation of Ser. No. US 1993-110663, filed on 20 Aug 1993, now
RLI
       patented, Pat. No. US 5407810
DT
       Utility
FS
       Granted
EXNAM
      Primary Examiner: Walsh, Stephen; Assistant Examiner: Romeo, David S.
LREP
       Hasak, Janet E.
CLMN
       Number of Claims: 26
       Exemplary Claim: 26
DRWN
       12 Drawing Figure(s); 12 Drawing Page(s)
LN.CNT 2489
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AΒ
       A method is described for isolating an exogenous polypeptide in a
       non-native conformation from cells, such as an aqueous fermentation
```

broth, in which it is prepared comprising contacting the polypeptide

with a chaotropic agent and preferably a reducing agent and with phase-forming species to form multiple aqueous phases, with one of the phases being enriched in the polypeptide and depleted in the biomass solids and nucleic acids originating from the cells. Preferably, the method results in two aqueous phases, with the upper phase being enriched in the polypeptide. L13 ANSWER 8 OF 9 USPATFULL 97:115123 USPATFULL Aqueous multiple-phase isolation of polypeptide Builder, Stuart, Belmont, CA, United States Hart, Roger, Burlingame, CA, United States Lester, Philip, San Lorenzo, CA, United States Ogez, John, Redwood City, CA, United States Reifsnyder, David, San Mateo, CA, United States Genentech, Inc., South San Francisco, CA, United States (U.S. corporation) US 5695958 19971209 US 1995-446882 19950517 (8) Continuation of Ser. No. US 1995-385187, filed on 7 Feb 1995 which is a continuation-in-part of Ser. No. US 1994-318627, filed on 11 Oct 1994, now abandoned which is a continuation-in-part of Ser. No. US 1993-110663, filed on 20 Aug 1993, now patented, Pat. No. US 5407810 Utility Granted Primary Examiner: Jagannathan, Vasu S.; Assistant Examiner: Romeo, David Hasak, Janet E. Number of Claims: 25 Exemplary Claim: 1 12 Drawing Figure(s); 12 Drawing Page(s) LN.CNT 2481 CAS INDEXING IS AVAILABLE FOR THIS PATENT. A method is described for isolating an exogenous polypeptide in a non-native conformation from cells, such as an aqueous fermentation broth, in which it is prepared comprising contacting the polypeptide with a chaotropic agent and preferably a reducing agent and with phase-forming species to form multiple aqueous phases, with one of the phases being enriched in the polypeptide and depleted in the biomass solids and nucleic acids originating from the cells. Preferably, the method results in two aqueous phases, with the upper phase being enriched in the polypeptide. L13 ANSWER 9 OF 9 USPATFULL 95:34058 USPATFULL Aqueous multiple-phase isolation of polypeptide Builder, Stuart, Belmont, CA, United States Hart, Roger, Burlingame, CA, United States Lester, Philip, San Lorenzo, CA, United States Ogez, John, Redwood City, CA, United States Reifsnyder, David, San Mateo, CA, United States Genentech, Inc., South San Francisco, CA, United States (U.S. corporation) US 5407810 19950418 US 1993-110663 19930820 (8) Utility Granted Primary Examiner: Walsh, Stephen G. Hasak, Janet E. Number of Claims: 29 Exemplary Claim: 1 12 Drawing Figure(s); 12 Drawing Page(s) LN.CNT 2197 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

A method is described for isolating an exogenous polypeptide in a non-native conformation from cells, such as an aqueous fermentation

ΑN ΤI

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PA

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FS

EXNAM LREP

CLMN

DRWN

ECL

ΆB

AN

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TN

PΑ

PΙ

ΑI

DT

FS

EXNAM

LREP CLMN

ECL

AB

DRWN

RLI

broth, in which it is prepared comprising contacting the polypeptide with a chaotropic agent and preferably a reducing agent and with phase-forming species to form multiple aqueous phases, with one of the phases being enriched in the polypeptide and

L1

L2L3

L4

 L_5

L6 L7

L8

L9

L10

L11L12

L13

L7

AN

тT

TM

PΑ

PΙ

AΙ

DT

FS

ECL

AB

RLI

depleted in the biomass solids and nucleic acids originating from the cells. Preferably, the method results in two aqueous phases, with the upper phase being enriched in the polypeptide. => d his (FILE 'HOME' ENTERED AT 17:20:25 ON 09 MAY 2002) FILE 'MEDLINE, CAPLUS, BIOSIS, BIOTECHDS, EMBASE, USPATFULL, WPIDS' ENTERED AT 17:20:49 ON 09 MAY 2002 35638 S YEAST (5A) CELL 936 S L1 AND (PICHIA PASTORIS) 52748 S PROTEIN (5A) EXTRACT? 210 S L2 AND L3 71 S L4 AND (DETERGENT OR TRIBUTYLPHOSPHATE OR (TNBP) OR DIMETHYL 111160 S REDUCING (5A) AGENT 11 S L5 AND L6 63 S L5 AND (DITHIOTHREITOL OR DDT OR DITHIOERYTHIRITOL OR DTE OR 11 S L8 AND L6 42 S L8 AND (GLYCEROL) 9 S L7 AND L10 9 S L9 AND L10 9 S L11 AND L12 => d 17 1-11 bib ab ANSWER 1 OF 11 USPATFULL 2002:39906 USPATFULL OB polypeptides and modified forms as modulators of body weight Friedman, Jeffrey M., New York, NY, United States Zhang, Yiying, New York, NY, United States Proenca, Ricardo, Astoria, NY, United States The Rockefeller University, New York, NY, United States (U.S. corporation) US 6350730 20020226 В1 US 1995-488223 19950607 (8) Continuation-in-part of Ser. No. US 1995-438431, filed on 10 May 1995 Continuation-in-part of Ser. No. US 1994-347563, filed on 30 Nov 1994, now patented, Pat. No. US 5935810 Continuation-in-part of Ser. No. US 1994-292345, filed on 17 Aug 1994, now patented, Pat. No. US 6001968 Utility GRANTED EXNAM Primary Examiner: Saoud, Christine J. LREP Klauber & Jackson CLMN Number of Claims: 27 Exemplary Claim: 1 DRWN 65 Drawing Figure(s); 61 Drawing Page(s) LN.CNT 7111 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention relates generally to the control of body weight of animals including mammals and humans, and more particularly to materials identified herein as modulators of body weight, and to diagnostic and therapeutic uses of such modulators. In one of its broadest aspects, the present invention relates to nucleotide sequences corresponding to the murine and human OB gene, and two isoforms thereof, and proteins expressed by such nucleotides or degenerate variations thereof, that demonstrate the ability to participate in the control of mammalian body weight and that have been postulated to play a critical role in the regulation of body weight and adiposity. The present invention further provides nucleic acid molecules for use as molecular probes or as

primers for polymerase chain reaction (PCR) amplification. In further aspects, the present invention provides cloning vectors and mammalian expression vectors comprising the nucleic acid molecules of the invention. The invention further relates to host cells transfected or transformed with an appropriate expression vector and to their use in the preparation of the modulators of the invention. Also provided are antibodies to the OB polypeptide. Moreover, a method for modulating body weight of a mammal is provided.

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L7
     ANSWER 2 OF 11 USPATFULL
       2001:190931 USPATFULL
AN
TI
       Modulators of body weight, corresponding nucleic acids and proteins, and
       diagnostic and therapeutic uses thereof
IN
       Friedman, Jeffrey M., New York, NY, United States
       Zhang, Yiying, New York, NY, United States
       Proenca, Ricardo, Astoria, NY, United States
The Rockfeller University, NY, NY, United States (U.S. corporation)
PΑ
PΙ
       US 6309853
                                20011030
                           B1
ΑI
       US 1995-483211
                                19950607 (8)
       Continuation-in-part of Ser. No. US 1995-438431, filed on 10 May 1995
RLI
       Continuation-in-part of Ser. No. US 1994-347563, filed on 30 Nov 1994,
       now patented, Pat. No. US 5936810 Continuation-in-part of Ser. No. US
       1994-292345, filed on 17 Aug 1994, now patented, Pat. No. US 6001968
DT
       Utility
FS
       GRANTED
       Primary Examiner: Yucel, Remy
EXNAM
       Klauber & Jackson
LREP
CLMN
       Number of Claims: 21
ECL
       Exemplary Claim: 1
DRWN
       65 Drawing Figure(s); 61 Drawing Page(s)
LN.CNT 6074
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB
       The present invention relates generally to the control of body weight of
       animals including mammals and humans, and more particularly to materials
       identified herein as modulators of body weight, and to diagnostic and
       therapeutic uses of such modulators. In its broadest aspect, the present
       invention relates to nucleotide sequences corresponding to the murine
       and human OB gene, and two isoforms thereof, and proteins expressed by
       such nucleotides or degenerate variations thereof, that demonstrate the
       ability to participate in the control of mammalian body weight and that
       have been postulated to play a critical role in the regulation of body
       weight and adiposity. The present invention further provides nucleic
       acid molecules for use as molecular probes or as primers for polymerase
       chain reaction (PCR) amplification. In further aspects, the present
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ANSWER 3 OF 11 USPATFULL
AN
       2001:71342 USPATFULL
       Luciferases, fluorescent proteins, nucleic acids encoding the
TI
       luciferases and fluorescent proteins and the use thereof in diagnostics,
```

high throughput screening and novelty items Bryan, Bruce J., 716 N. Arden Dr., Beverly Hills, CA, United States

invention provides cloning vectors and mammalian expression vectors comprising the nucleic acid molecules of the invention. The invention further relates to host cells transfected or transformed with an

appropriate expression vector and to their use in the preparation of the modulators of the invention. Also provided are antibodies to the OB polypeptide. Moreover, a method for modulating body weight of a mammal

Szent-Gyorgyi, Christopher, Pittsburgh, PA, United States

Bryan, Bruce J., United States (U.S. individual)

Prolume, LTD, Pittsburgh, PA, United States (U.S. corporation) PΙ US 6232107 20010515

AΙ US 1999-277716 19990326 (9) US 1998-102939P PRAI 19981001 (60)

is provided.

L7

IN

PA

DTUtility FS Granted EXNAM Primary Examiner: Achutamurthy, Ponnathapu; Assistant Examiner: Rao, Manjunath N. LREP Seidman, StephanieHeller, Ehrman, White & Mculiffe LLP CLMN Number of Claims: 63 ECL Exemplary Claim: 1 DRWN 14 Drawing Figure(s); 11 Drawing Page(s) LN.CNT 6743 CAS INDEXING IS AVAILABLE FOR THIS PATENT. Isolated and purified nucleic acid molecules that encode a luciferase from Renilla mulleri, Gaussia and Pleuromamma, and the proteins encoded thereby are provided. Isolated and purified nucleic acids encoding green fluorescent proteins from the genus Renilla and Ptilosarcus, and the green fluorescent proteins encoded thereby are also provided. Compositions and combinations comprising the green fluorescent proteins and/or the luciferase are further provided. ANSWER 4 OF 11 USPATFULL L7 2000:128480 USPATFULL AN Nucleic acid primers and probes for the mammalian OB gene ΤI Friedman, Jeffrey M., New York, NY, United States IN Zhang, Yiying, New York, NY, United States Proenca, Ricardo, Astoria, NY, United States Maffei, Margherita, New York, NY, United States PΑ The Rockfeller University, NY, United States (U.S. corporation) PΙ US 6124448 20000926 ΑI US 1995-488208 19950607 (8) Continuation-in-part of Ser. No. US 1995-438431, filed on 10 May 1995 RLI which is a continuation-in-part of Ser. No. US 1994-347563, filed on 30 Nov 1994, now patented, Pat. No. US 5935810 which is a continuation-in-part of Ser. No. US 1994-292345, filed on 17 Aug 1994 DTUtility FS Granted Primary Examiner: Railey, II, Johnny F. EXNAM LREP Klauber & Jackson CLMN Number of Claims: 4 ECL Exemplary Claim: 1 DRWN 61 Drawing Figure(s); 61 Drawing Page(s) LN.CNT 7089 CAS INDEXING IS AVAILABLE FOR THIS PATENT. The present invention relates generally to the control of body weight of animals including mammals and humans, and more particularly to materials identified herein as modulators of weight, and to the diagnostic and therapeutic uses to which such modulators may be put. In its broadest aspect, the present invention relates to the elucidation and discovery of nucleotide sequences, and proteins putatively expressed by such nucleotides or degenerate variations thereof, that demonstrate the ability to participate in the control of mammalian body weight. The nucleotide sequences in object represent the genes corresponding to the murine and human ob gene, that have been postulated to play a critical role in the regulation of body weight and adiposity. Preliminary data, presented herein, suggests that the polypeptide product of the gene in question functions as a hormone. The present invention further provides nucleic acid molecules for use as molecular probes, or as primers for polymerase chain reaction (PCR) amplification, i.e., synthetic or natural oligonucleotides. In further aspects, the present invention provides a cloning vector, which comprises the nucleic acids of the invention; and a bacterial, insect, or a mammalian expression vector, which comprises the nucleic acid molecules of the invention, operatively associated with an expression control sequence. Accordingly, the

invention further relates to a bacterial or a mammalian cell transfected

correspondingly, to the use of the above mentioned constructs in the preparation of the modulators of the invention. Also provided are

or transformed with an appropriate expression vector, and

antibodies to the ob polypeptide. Moreover, a method for modulating body weight of a mammal is provided. In specific examples, genes encoding two isoforms of both the murine and human ob polypeptides are provided.

```
ANSWER 5 OF 11 USPATFULL
L7
ΑN
       2000:128471 USPATFULL
ΤI
       OB polypeptide antibodies and method of making
IN
       Friedman, Jeffrey M., New York, NY, United States
       Zhang, Yiying, New York, NY, United States
       Proenca, Ricardo, Astoria, NY, United States
PA
       The Rockefeller University, New York, NY, United States (U.S.
       corporation)
PΙ
       US 6124439
                               20000926
       US 1995-488214
ΑI
                               19950607 (8)
       Continuation-in-part of Ser. No. US 1995-438431, filed on 10 May 1995
RLI
       which is a continuation-in-part of Ser. No. US 1994-347563, filed on 30
       Nov 1994 which is a continuation-in-part of Ser. No. US 1994-292345,
       filed on 17 Aug 1994
DT
       Utility
FS
       Granted
EXNAM
       Primary Examiner: Draper, Garnette D.
       Klauber & Jackson
LREP
CLMN
       Number of Claims: 27
ECL
       Exemplary Claim: 1
DRWN
       68 Drawing Figure(s); 61 Drawing Page(s)
LN.CNT 6777
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention relates generally to the control of body weight of
       animals including mammals and humans, and more particularly to materials
       identified herein as modulators of body weight, and to diagnostic and
       therapeutic uses of such modulators. In its broadest aspect, the present
       invention relates to nucleotide sequences corresponding to the murine
       and human OB gene, and two isoforms thereof, and proteins expressed by
       such nucleotides or degenerate variations thereof, that demonstrate the
       ability to participate in the control of mammalian body weight and that
       have been postulated to play a critical role in the regulation of body
       weight and adiposity. The present invention further provides nucleic
       acid molecules for use as molecular probes or as primers for polymerase
       chain reaction (PCR) amplification. In further aspects, the present
       invention provides cloning vectors and mammalian expression vectors
       comprising the nucleic acid molecules of the invention. The invention
       further relates to host cells transfected or transformed with an
       appropriate expression vector and to their use in the preparation of the
       modulators of the invention. Also provided are antibodies to the OB
       polypeptide. Moreover, a method for modulating body weight of a mammal
       is provided.
L7
    ANSWER 6 OF 11 USPATFULL
AN
       2000:44077 USPATFULL
ΤI
       OB polypeptides as modulators of body weight
IN
       Friedman, Jeffrey M., New York, NY, United States
       Zhang, Yiying, New York, NY, United States
       Proenca, Ricardo, Astoria, NY, United States
PA
       The Rockefeller University, United States (U.S. corporation)
ΡI
      US 6048837
                               20000411
ΑI
      US 1995-485942
                               19950607 (8)
       Continuation-in-part of Ser. No. US 1995-438431, filed on 10 May 1995
RLI
      which is a continuation-in-part of Ser. No. US 1994-347563, filed on 30
      Nov 1994 which is a continuation-in-part of Ser. No. US 1994-292345,
       filed on 17 Aug 1994
DT
      Utility
FS
      Granted
EXNAM
      Primary Examiner: Draper, Garnette D.
LREP
      Klauber & Jackson
CLMN
      Number of Claims: 11
```

ECL Exemplary Claim: 1 DRWN 35 Drawing Figure(s); 61 Drawing Page(s) LN.CNT 7390 CAS INDEXING IS AVAILABLE FOR THIS PATENT. The present invention relates generally to the control of body weight of AB animals including mammals and humans, and more particularly to materials identified herein as modulators of body weight, and to diagnostic and therapeutic uses of such modulators. In its broadest aspect, the present invention relates to nucleotide sequences corresponding to the murine and human OB gene, and two isoforms thereof, and proteins expressed by such nucleotides or degenerate variations thereof, that demonstrate the ability to participate in the control of mammalian body weight and that have been postulated to play a critical role in the regulation of body weight and adiposity. The present invention further provides nucleic acid molecules for use as molecular probes or as primers for polymerase chain reaction (PCR) amplification. In further aspects, the present invention provides cloning vectors and mammalian expression vectors comprising the nucleic acid molecules of the invention. The invention further relates to host cells transfected or transformed with an appropriate expression vector and to their use in the preparation of the modulators of the invention. Also provided are antibodies to the OB polypeptide. Moreover, a method for modulating body weight of a mammal is provided. L7ANSWER 7 OF 11 USPATFULL ΑN 1999:124725 USPATFULL ΤI Production of GAD65 in methylotrophic yeast IN Raymond, Christopher K., Seattle, WA, United States Bukowski, Thomas R., Seattle, WA, United States Bishop, Paul D., Fall City, WA, United States ZymoGenetics, Inc., Seattle, WA, United States (U.S. corporation) PA PIUS 5965389 19991012 ΑI US 1996-747108 19961108 (8) RLI Continuation-in-part of Ser. No. US 1996-703807, filed on 26 Aug 1996 And a continuation-in-part of Ser. No. US 1996-703809, filed on 26 Aug 1996, now patented, Pat. No. US 5716808 PRAI US 1995-6397P 19951109 (60) DТ Utility FS Granted EXNAM Primary Examiner: Degen, Nancy; Assistant Examiner: Schwartzman, Robert Townsend and Townsend and Crew LLP LREP Number of Claims: 56 CLMN ECLExemplary Claim: 12 DRWN 3 Drawing Figure(s); 3 Drawing Page(s) LN.CNT 2078 CAS INDEXING IS AVAILABLE FOR THIS PATENT. Methylotrophic yeast are used for high-level expression of GAD65 that makes the production of GAD65 feasible on an industrial scale. A methanol-inducible promoter from, for example, an alcohol oxidase gene, such as Pichia pastoris AOX1, can be used to regulate GAD65 expression. The recombinant GAD65 has high specific activity and retains antigenic characteristics of the native molecule that are essential to immunological assays and therapeutic protocols. L7ANSWER 8 OF 11 USPATFULL 1998:22074 USPATFULL ΑN TIAqueous multiple-phase isolation of polypeptide Builder, Stuart, Belmont, CA, United States IN Hart, Roger, Burlingame, CA, United States Lester, Philip, San Lorenzo, CA, United States Ogez, John, Redwood City, CA, United States Reifsnyder, David, San Mateo, CA, United States PA Genentech, Inc., South San Francisco, CA, United States (U.S.

19980303

corporation)

US 5723310

PΙ

```
AΤ
       US 1995-385187
                               19950207 (8)
RLI
       Continuation of Ser. No. US 1993-110663, filed on 20 Aug 1993, now
       patented, Pat. No. US 5407810
       Utility
DT
       Granted
FS
EXNAM
       Primary Examiner: Walsh, Stephen; Assistant Examiner: Romeo, David S.
LREP
       Hasak, Janet E.
       Number of Claims: 26
CLMN
ECL
       Exemplary Claim: 26
DRWN
       12 Drawing Figure(s); 12 Drawing Page(s)
LN.CNT 2489
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       A method is described for isolating an exogenous polypeptide in a
       non-native conformation from cells, such as an aqueous fermentation
       broth, in which it is prepared comprising contacting the polypeptide
       with a chaotropic agent and preferably a reducing
       agent and with phase-forming species to form multiple aqueous
       phases, with one of the phases being enriched in the polypeptide and
       depleted in the biomass solids and nucleic acids originating from the
       cells. Preferably, the method results in two aqueous phases, with the
       upper phase being enriched in the polypeptide.
     ANSWER 9 OF 11 USPATFULL
1.7
AN
       97:115123 USPATFULL
ΤI
       Aqueous multiple-phase isolation of polypeptide
IN
       Builder, Stuart, Belmont, CA, United States
       Hart, Roger, Burlingame, CA, United States
       Lester, Philip, San Lorenzo, CA, United States
       Ogez, John, Redwood City, CA, United States
       Reifsnyder, David, San Mateo, CA, United States
PA
       Genentech, Inc., South San Francisco, CA, United States (U.S.
       corporation)
PΙ
       US 5695958
                               19971209
AΙ
       US 1995-446882
                               19950517 (8)
       Continuation of Ser. No. US 1995-385187, filed on 7 Feb 1995 which is a
RLI
       continuation-in-part of Ser. No. US 1994-318627, filed on 11 Oct 1994,
       now abandoned which is a continuation-in-part of Ser. No. US
       1993-110663, filed on 20 Aug 1993, now patented, Pat. No. US 5407810
       Utility
DT
       Granted
FS
       Primary Examiner: Jagannathan, Vasu S.; Assistant Examiner: Romeo, David
EXNAM
LREP
       Hasak, Janet E.
CLMN
       Number of Claims: 25
ECL
       Exemplary Claim: 1
       12 Drawing Figure(s); 12 Drawing Page(s)
DRWN
LN.CNT 2481
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       A method is described for isolating an exogenous polypeptide in a
       non-native conformation from cells, such as an aqueous fermentation
       broth, in which it is prepared comprising contacting the polypeptide
       with a chaotropic agent and preferably a reducing
       agent and with phase-forming species to form multiple aqueous
       phases, with one of the phases being enriched in the polypeptide and
       depleted in the biomass solids and nucleic acids originating from the
       cells. Preferably, the method results in two aqueous phases, with the
       upper phase being enriched in the polypeptide.
     ANSWER 10 OF 11 USPATFULL
L7
AN
       95:34058 USPATFULL
TI
       Aqueous multiple-phase isolation of polypeptide
       Builder, Stuart, Belmont, CA, United States
IN
       Hart, Roger, Burlingame, CA, United States
       Lester, Philip, San Lorenzo, CA, United States
```

Ogez, John, Redwood City, CA, United States Reifsnyder, David, San Mateo, CA, United States

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Genentech, Inc., South San Francisco, CA, United States (U.S.
PΑ
       corporation)
PΤ
       US 5407810
                               19950418
       US 1993-110663
                                19930820 (8)
AΙ
       Utility
DT
FS
       Granted
EXNAM
       Primary Examiner: Walsh, Stephen G.
       Hasak, Janet E.
LREP
CLMN
       Number of Claims: 29
ECL
       Exemplary Claim: 1
DRWN
       12 Drawing Figure(s); 12 Drawing Page(s)
LN.CNT 2197
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       A method is described for isolating an exogenous polypeptide in a
       non-native conformation from cells, such as an aqueous fermentation
       broth, in which it is prepared comprising contacting the polypeptide
       with a chaotropic agent and preferably a reducing
       agent and with phase-forming species to form multiple aqueous
       phases, with one of the phases being enriched in the polypeptide and
       depleted in the biomass solids and nucleic acids originating from the
       cells. Preferably, the method results in two aqueous phases, with the
       upper phase being enriched in the polypeptide.
L7
     ANSWER 11 OF 11 USPATFULL
ΑN
       91:34434 USPATFULL
TI
       Process for purifying recombinant hepatitis antigens
IN
       Yamazaki, Shigeko, Hatfield, PA, United States
PΑ
       Merck & Co., Inc., Rahway, NJ, United States (U.S. corporation)
PΤ
       US 5011915
                               19910430
AΙ
       US 1987-113582
                               19871026 (7)
DT
       Utility
FS
       Granted
EXNAM
       Primary Examiner: Draper, Garnett D.
       Meredith, Roy D., Caruso, Charles M.
CLMN
       Number of Claims: 15
       Exemplary Claim: 1
ECL
DRWN
       No Drawings
LN.CNT 675
       Methods of purifying recombinant surface antigen of hepatitis B virus
AB
       are disclosed. In one protocol, purification is achieved by selective
       extraction of the antigen from yeast membranes, followed by
       solubilization with urea and dithiothreitol.
=> d l12 1-9 bib ab
L12
    ANSWER 1 OF 9 USPATFULL
       2002:39906 USPATFULL
AN
       OB polypeptides and modified forms as modulators of body weight
TI
       Friedman, Jeffrey M., New York, NY, United States
IN
       Zhang, Yiying, New York, NY, United States
       Proenca, Ricardo, Astoria, NY, United States
PA
       The Rockefeller University, New York, NY, United States (U.S.
       corporation)
PΤ
       US 6350730
                               20020226
                          B1
ΆT
       US 1995-488223
                               19950607 (8)
       Continuation-in-part of Ser. No. US 1995-438431, filed on 10 May 1995
RLI
       Continuation-in-part of Ser. No. US 1994-347563, filed on 30 Nov 1994,
       now patented, Pat. No. US 5935810 Continuation-in-part of Ser. No. US
       1994-292345, filed on 17 Aug 1994, now patented, Pat. No. US 6001968
DT
       Utility
       GRANTED
FS
EXNAM
       Primary Examiner: Saoud, Christine J.
LREP
       Klauber & Jackson
```

CLMN

Number of Claims: 27

ECLExemplary Claim: 1 DRWN 65 Drawing Figure(s); 61 Drawing Page(s) LN.CNT 7111 CAS INDEXING IS AVAILABLE FOR THIS PATENT. The present invention relates generally to the control of body weight of ABanimals including mammals and humans, and more particularly to materials identified herein as modulators of body weight, and to diagnostic and therapeutic uses of such modulators. In one of its broadest aspects, the present invention relates to nucleotide sequences corresponding to the murine and human OB gene, and two isoforms thereof, and proteins expressed by such nucleotides or degenerate variations thereof, that demonstrate the ability to participate in the control of mammalian body weight and that have been postulated to play a critical role in the regulation of body weight and adiposity. The present invention further provides nucleic acid molecules for use as molecular probes or as primers for polymerase chain reaction (PCR) amplification. In further aspects, the present invention provides cloning vectors and mammalian expression vectors comprising the nucleic acid molecules of the invention. The invention further relates to host cells transfected or transformed with an appropriate expression vector and to their use in the preparation of the modulators of the invention. Also provided are weight of a mammal is provided. ANSWER 2 OF 9 USPATFULL L122001:190931 USPATFULL AN ΤТ diagnostic and therapeutic uses thereof IN Zhang, Yiying, New York, NY, United States

ECL

DRWN

LN.CNT 6074

Exemplary Claim: 1

65 Drawing Figure(s); 61 Drawing Page(s)

antibodies to the OB polypeptide. Moreover, a method for modulating body Modulators of body weight, corresponding nucleic acids and proteins, and Friedman, Jeffrey M., New York, NY, United States Proenca, Ricardo, Astoria, NY, United States The Rockfeller University, NY, NY, United States (U.S. corporation) PA PIUS 6309853 B1 20011030 ΑI US 1995-483211 19950607 (8) RLI Continuation-in-part of Ser. No. US 1995-438431, filed on 10 May 1995 Continuation-in-part of Ser. No. US 1994-347563, filed on 30 Nov 1994, now patented, Pat. No. US 5936810 Continuation-in-part of Ser. No. US 1994-292345, filed on 17 Aug 1994, now patented, Pat. No. US 6001968 DTUtility FS GRANTED EXNAM Primary Examiner: Yucel, Remy LREP Klauber & Jackson CLMN Number of Claims: 21

CAS INDEXING IS AVAILABLE FOR THIS PATENT. The present invention relates generally to the control of body weight of animals including mammals and humans, and more particularly to materials identified herein as modulators of body weight, and to diagnostic and therapeutic uses of such modulators. In its broadest aspect, the present invention relates to nucleotide sequences corresponding to the murine and human OB gene, and two isoforms thereof, and proteins expressed by such nucleotides or degenerate variations thereof, that demonstrate the ability to participate in the control of mammalian body weight and that have been postulated to play a critical role in the regulation of body weight and adiposity. The present invention further provides nucleic acid molecules for use as molecular probes or as primers for polymerase chain reaction (PCR) amplification. In further aspects, the present invention provides cloning vectors and mammalian expression vectors comprising the nucleic acid molecules of the invention. The invention further relates to host cells transfected or transformed with an appropriate expression vector and to their use in the preparation of the modulators of the invention. Also provided are antibodies to the OB polypeptide. Moreover, a method for modulating body weight of a mammal

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is provided.
L12 ANSWER 3 OF 9 USPATFULL
       2000:128480 USPATFULL
AN
ΤI
       Nucleic acid primers and probes for the mammalian OB gene
TN
       Friedman, Jeffrey M., New York, NY, United States
       Zhang, Yiying, New York, NY, United States
       Proenca, Ricardo, Astoria, NY, United States
       Maffei, Margherita, New York, NY, United States
PΑ
       The Rockfeller University, NY, United States (U.S. corporation)
PI
       US 6124448
                               20000926
                               19950607 (8)
AΙ
       US 1995-488208
RLI
       Continuation-in-part of Ser. No. US 1995-438431, filed on 10 May 1995
       which is a continuation-in-part of Ser. No. US 1994-347563, filed on 30
       Nov 1994, now patented, Pat. No. US 5935810 which is a
       continuation-in-part of Ser. No. US 1994-292345, filed on 17 Aug 1994
DT
       Utility
FS
       Granted
EXNAM
       Primary Examiner: Railey, II, Johnny F.
LREP
       Klauber & Jackson
CLMN
       Number of Claims: 4
       Exemplary Claim: 1
ECL
DRWN
       61 Drawing Figure(s); 61 Drawing Page(s)
LN.CNT 7089
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention relates generally to the control of body weight of
       animals including mammals and humans, and more particularly to materials
       identified herein as modulators of weight, and to the diagnostic and
       therapeutic uses to which such modulators may be put. In its broadest
       aspect, the present invention relates to the elucidation and discovery
       of nucleotide sequences, and proteins putatively expressed by such
       nucleotides or degenerate variations thereof, that demonstrate the
       ability to participate in the control of mammalian body weight. The
       nucleotide sequences in object represent the genes corresponding to the
       murine and human ob gene, that have been postulated to play a critical
       role in the regulation of body weight and adiposity. Preliminary data,
       presented herein, suggests that the polypeptide product of the gene in
```

identified herein as modulators of weight, and to the diagnostic and therapeutic uses to which such modulators may be put. In its broadest aspect, the present invention relates to the elucidation and discovery of nucleotide sequences, and proteins putatively expressed by such nucleotides or degenerate variations thereof, that demonstrate the ability to participate in the control of mammalian body weight. The nucleotide sequences in object represent the genes corresponding to the murine and human ob gene, that have been postulated to play a critical role in the regulation of body weight and adiposity. Preliminary data, presented herein, suggests that the polypeptide product of the gene in question functions as a hormone. The present invention further provides nucleic acid molecules for use as molecular probes, or as primers for polymerase chain reaction (PCR) amplification, i.e., synthetic or natural oligonucleotides. In further aspects, the present invention provides a cloning vector, which comprises the nucleic acids of the invention; and a bacterial, insect, or a mammalian expression vector, which comprises the nucleic acid molecules of the invention, operatively associated with an expression control sequence. Accordingly, the invention further relates to a bacterial or a mammalian cell transfected or transformed with an appropriate expression vector, and correspondingly, to the use of the above mentioned constructs in the preparation of the modulators of the invention. Also provided are antibodies to the ob polypeptide. Moreover, a method for modulating body weight of a mammal is provided. In specific examples, genes encoding two isoforms of both the murine and human ob polypeptides are provided.

```
2000:128471 USPATFULL
AN
TI
       OB polypeptide antibodies and method of making
TN
       Friedman, Jeffrey M., New York, NY, United States
       Zhang, Yiying, New York, NY, United States
       Proenca, Ricardo, Astoria, NY, United States
PA
       The Rockefeller University, New York, NY, United States (U.S.
       corporation)
PΤ
       US 6124439
                               20000926
                               19950607 (8)
ΑI
       US 1995-488214
RLI
       Continuation-in-part of Ser. No. US 1995-438431, filed on 10 May 1995
       which is a continuation-in-part of Ser. No. US 1994-347563, filed on 30
```

L12 ANSWER 4 OF 9 USPATFULL

Nov 1994 which is a continuation-in-part of Ser. No. US 1994-292345, filed on 17 Aug 1994 Utility Granted Primary Examiner: Draper, Garnette D. EXNAM Klauber & Jackson Number of Claims: 27 Exemplary Claim: 1 68 Drawing Figure(s); 61 Drawing Page(s) LN.CNT 6777 CAS INDEXING IS AVAILABLE FOR THIS PATENT. The present invention relates generally to the control of body weight of animals including mammals and humans, and more particularly to materials identified herein as modulators of body weight, and to diagnostic and therapeutic uses of such modulators. In its broadest aspect, the present invention relates to nucleotide sequences corresponding to the murine and human OB gene, and two isoforms thereof, and proteins expressed by such nucleotides or degenerate variations thereof, that demonstrate the ability to participate in the control of mammalian body weight and that

have been postulated to play a critical role in the regulation of body weight and adiposity. The present invention further provides nucleic acid molecules for use as molecular probes or as primers for polymerase chain reaction (PCR) amplification. In further aspects, the present invention provides cloning vectors and mammalian expression vectors comprising the nucleic acid molecules of the invention. The invention further relates to host cells transfected or transformed with an

appropriate expression vector and to their use in the preparation of the modulators of the invention. Also provided are antibodies to the OB polypeptide. Moreover, a method for modulating body weight of a mammal

L12 ANSWER 5 OF 9 USPATFULL

is provided.

2000:44077 USPATFULL AN

ΤI OB polypeptides as modulators of body weight

IN Friedman, Jeffrey M., New York, NY, United States

Zhang, Yiying, New York, NY, United States Proenca, Ricardo, Astoria, NY, United States

PΑ The Rockefeller University, United States (U.S. corporation)

PΤ US 6048837

DT

FS

LREP

CLMN

DRWN

ECT.

20000411

ΑI US 1995-485942 19950607 (8)

RLI Continuation-in-part of Ser. No. US 1995-438431, filed on 10 May 1995 which is a continuation-in-part of Ser. No. US 1994-347563, filed on 30 Nov 1994 which is a continuation-in-part of Ser. No. US 1994-292345, filed on 17 Aug 1994

DTUtility

FS Granted

EXNAM Primary Examiner: Draper, Garnette D.

LREP Klauber & Jackson Number of Claims: 11 CLMN ECL Exemplary Claim: 1

DRWN 35 Drawing Figure(s); 61 Drawing Page(s)

LN.CNT 7390

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates generally to the control of body weight of animals including mammals and humans, and more particularly to materials identified herein as modulators of body weight, and to diagnostic and therapeutic uses of such modulators. In its broadest aspect, the present invention relates to nucleotide sequences corresponding to the murine and human OB gene, and two isoforms thereof, and proteins expressed by such nucleotides or degenerate variations thereof, that demonstrate the ability to participate in the control of mammalian body weight and that have been postulated to play a critical role in the regulation of body weight and adiposity. The present invention further provides nucleic acid molecules for use as molecular probes or as primers for polymerase chain reaction (PCR) amplification. In further aspects, the present

invention provides cloning vectors and mammalian expression vectors comprising the nucleic acid molecules of the invention. The invention further relates to host cells transfected or transformed with an appropriate expression vector and to their use in the preparation of the modulators of the invention. Also provided are antibodies to the OB polypeptide. Moreover, a method for modulating body weight of a mammal is provided.

```
L12 ANSWER 6 OF 9 USPATFULL
AN
       1999:124725 USPATFULL
TΙ
       Production of GAD65 in methylotrophic yeast
       Raymond, Christopher K., Seattle, WA, United States
IN
       Bukowski, Thomas R., Seattle, WA, United States
       Bishop, Paul D., Fall City, WA, United States
       ZymoGenetics, Inc., Seattle, WA, United States (U.S. corporation)
PΑ
ΡI
       US 5965389
                               19991012
ΑI
       US 1996-747108
                               19961108 (8)
       Continuation-in-part of Ser. No. US 1996-703807, filed on 26 Aug 1996
RLI
       And a continuation-in-part of Ser. No. US 1996-703809, filed on 26 Aug
       1996, now patented, Pat. No. US 5716808
PRAI
       US 1995-6397P
                           19951109 (60)
       Utility
DT
       Granted
FS
       Primary Examiner: Degen, Nancy; Assistant Examiner: Schwartzman, Robert
EXNAM
       Townsend and Townsend and Crew LLP
LREP
       Number of Claims: 56
CLMN
       Exemplary Claim: 12
ECL
DRWN
       3 Drawing Figure(s); 3 Drawing Page(s)
LN.CNT 2078
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Methylotrophic yeast are used for high-level expression of GAD65 that
       makes the production of GAD65 feasible on an industrial scale. A
       methanol-inducible promoter from, for example, an alcohol oxidase gene,
       such as Pichia pastoris AOX1, can be used to
       regulate GAD65 expression. The recombinant GAD65 has high specific
       activity and retains antigenic characteristics of the native molecule
       that are essential to immunological assays and therapeutic protocols.
L12
    ANSWER 7 OF 9 USPATFULL
       1998:22074 USPATFULL
AN
       Aqueous multiple-phase isolation of polypeptide
TΙ
TN
       Builder, Stuart, Belmont, CA, United States
       Hart, Roger, Burlingame, CA, United States
       Lester, Philip, San Lorenzo, CA, United States
       Ogez, John, Redwood City, CA, United States
       Reifsnyder, David, San Mateo, CA, United States
PΑ
       Genentech, Inc., South San Francisco, CA, United States (U.S.
       corporation)
       US 5723310
PΙ
                               19980303
       US 1995-385187
AΙ
                               19950207 (8)
       Continuation of Ser. No. US 1993-110663, filed on 20 Aug 1993, now
RLI
       patented, Pat. No. US 5407810
DT
       Utility
FS
       Granted
       Primary Examiner: Walsh, Stephen; Assistant Examiner: Romeo, David S.
EXNAM
       Hasak, Janet E.
LREP
CLMN
       Number of Claims: 26
ECL
       Exemplary Claim: 26
       12 Drawing Figure(s); 12 Drawing Page(s)
LN.CNT 2489
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       A method is described for isolating an exogenous polypeptide in a
AB
       non-native conformation from cells, such as an aqueous fermentation
```

broth, in which it is prepared comprising contacting the polypeptide

with a chaotropic agent and preferably a reducing

agent and with phase-forming species to form multiple aqueous phases, with one of the phases being enriched in the polypeptide and depleted in the biomass solids and nucleic acids originating from the cells. Preferably, the method results in two aqueous phases, with the upper phase being enriched in the polypeptide.

```
L12 ANSWER 8 OF 9 USPATFULL
       97:115123 USPATFULL
ΑN
ΤI
       Aqueous multiple-phase isolation of polypeptide
IN
       Builder, Stuart, Belmont, CA, United States
       Hart, Roger, Burlingame, CA, United States
       Lester, Philip, San Lorenzo, CA, United States
       Ogez, John, Redwood City, CA, United States
       Reifsnyder, David, San Mateo, CA, United States
PA
       Genentech, Inc., South San Francisco, CA, United States (U.S.
       corporation)
PI
       US 5695958
                               19971209
       US 1995-446882
                               19950517 (8)
ΑI
       Continuation of Ser. No. US 1995-385187, filed on 7 Feb 1995 which is a
RLI
       continuation-in-part of Ser. No. US 1994-318627, filed on 11 Oct 1994,
       now abandoned which is a continuation-in-part of Ser. No. US
       1993-110663, filed on 20 Aug 1993, now patented, Pat. No. US 5407810
DT
       Utility
       Granted
FS
       Primary Examiner: Jagannathan, Vasu S.; Assistant Examiner: Romeo, David
EXNAM
LREP
       Hasak, Janet E.
       Number of Claims: 25
CLMN
       Exemplary Claim: 1
ECL
       12 Drawing Figure(s); 12 Drawing Page(s)
DRWN
LN.CNT 2481
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       A method is described for isolating an exogenous polypeptide in a
       non-native conformation from cells, such as an aqueous fermentation
       broth, in which it is prepared comprising contacting the polypeptide
       with a chaotropic agent and preferably a reducing
       agent and with phase-forming species to form multiple aqueous
       phases, with one of the phases being enriched in the polypeptide and
       depleted in the biomass solids and nucleic acids originating from the
       cells. Preferably, the method results in two aqueous phases, with the
       upper phase being enriched in the polypeptide.
L12 ANSWER 9 OF 9 USPATFULL
AN
       95:34058 USPATFULL
TI
       Aqueous multiple-phase isolation of polypeptide
TN
       Builder, Stuart, Belmont, CA, United States
       Hart, Roger, Burlingame, CA, United States
       Lester, Philip, San Lorenzo, CA, United States
       Ogez, John, Redwood City, CA, United States
       Reifsnyder, David, San Mateo, CA, United States
PA
       Genentech, Inc., South San Francisco, CA, United States (U.S.
       corporation)
PΙ
       US 5407810
                               19950418
       US 1993-110663
                               19930820 (8)
ΑI
       Utility
DT
FS
       Granted
EXNAM
       Primary Examiner: Walsh, Stephen G.
LREP
       Hasak, Janet E.
       Number of Claims: 29
CLMN
       Exemplary Claim: 1
ECL
       12 Drawing Figure(s); 12 Drawing Page(s)
DRWN
LN.CNT 2197
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       A method is described for isolating an exogenous polypeptide in a
AB
       non-native conformation from cells, such as an aqueous fermentation
```

broth, in which it is prepared comprising contacting the polypeptide